

REMARKS

In the last Office Action claims 1-10 inclusive were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1, 4-6, 9 and 10 were rejected under 35 U.S.C. § 35 U.S.C. § 102(b) as being anticipated by Poussin USP No. 5,202,097. Claims 2, 3 7 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Poussin.

Independent claims 1 and 6 have been amended for then sole purpose of overcoming the rejection of the claims as being indefinite. The amendments do not raise any new issue whatsoever. Reconsideration and allowance of the application are respectfully requested in view of the following remarks.

Claims 1 and 6 both specifically call for an unperforated cylindrical wall 15 coaxial to said gas outlet wall 8 in said catalytic bed. These claims further call for said unperforated cylindrical wall extending from an upper end of said gas outlet wall along a perforated portion of said gas outlet wall for a predetermined length in said catalytic bed. Additionally these claims specifically set forth that a free space 16 is defined between the perforated gas outlet wall 8 and the unperforated wall 15 for the passage of a part of the gas leaving said catalytic bed through said portion of the gas outlet wall facing the free space 16. These limitations are not shown or even suggested by the Poussin patent. It is clearly shown in figure 1 of Poussin that the unperforated cylindrical wall 10 clearly does not extend along a perforated portion of the gas outlet wall 9. The perforations appear to be shown schematically in the gas outlet wall 9 as only being located within the catalytic bed 31. The upper and lower ends of the gas outlet wall 9 are not provided with perforations since the upper and lower ends of the gas outlet tube are not surrounded or in contact with the catalytic bed. Thus the cylindrical wall portion of the cap 10

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Fig. 1 15584001.C
+ presence of arrows
not per. there are
shown.

clearly does not extend along a perforated portion of the gas outlet wall for a predetermined length in said catalytic bed. The cylindrical wall of the cap 10 terminates at the top of the catalytic bed and never extends into the catalytic bed. Since figure 1 is a schematic view the only reason for showing the cylindrical wall portion of the cap 10 as being spaced from the gas outlet tube 9 is simply to show that two separate elements are provided. If the cylindrical wall of the cap 10 was touching the upper end of the gas outlet wall there would be no distinguishing of the cap from the upper end of the gas outlet tube. Therefore the spacing in all probability does not exist in an actual reactor. In any event even if there is a spacing it is not provided for the passage of a part of the gas leaving the catalytic bed as called for in claims 1 and 6 since there is no gas exiting at the top end of the gas outlet tube since there are no perforations in the upper end of the gas outlet tube. Thus it is clear that the Examiner is reading structure and function into the Poussin reference which is not there and at the most is only suggested by the present invention. Poussin clearly fails to disclose the specific combination of elements discussed above and accordingly the claims are clearly not anticipated by the teachings of Poussin. Furthermore there is absolutely nothing within the disclosure of Poussin which would suggest modifications to one skilled in the art which would meet the limitations of independent claims 1 and 6. Therefore it is submitted that claims 1 and 6 are patentable over the teachings of Poussin and it is respectfully requested that these claims as well as the claims dependent therefrom be allowed and the application passed to issue forthwith.

Amendment Under 37 C.F.R. § 1.116
USSN 09/231,791
Attorney Docket Q52856

If for any reason the Examiner is unable to allow the application on the next Office Action and feels that an interview would be helpful to resolve any remaining issue, the Examiner is respectfully requested to contact the undersigned attorney for the purpose of arranging such an interview.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

--1. (~~Thrice~~Four Times Amended) A method for in-situ modernization of a heterogeneous synthesis reactor, including an external shell comprising at least a catalytic bed (6) provided with a gas inlet perforated cylindrical wall (7) and a gas outlet perforated cylindrical wall (8), said method comprising the steps of:

providing an unperforated cylindrical wall (15) coaxial to said gas outlet wall (8) in said catalytic bed (6), said unperforated cylindrical wall (15) extending from an upper end (8a) of said gas outlet wall (8) along a perforated portion of ~~the same~~said gas outlet wall and for a predetermined length in said catalytic bed, so as to define a free-space (16) between the perforated gas outlet wall (8) and the unperforated wall (15), for the passage of a part of the gas leaving said catalytic bed (6) through said portion of the gas outlet wall (8) facing said free-space (16);

providing means for closing an upper end of said free-space (16) between the unperforated wall (15) and the gas outlet wall (8), in proximity of the upper end (8a) of the wall (8), preventing thereby a bypass of said catalytic bed or a recycling to the catalytic bed of the gas entering and leaving the reactor, respectively.

6. (~~Twice~~Thrice Amended) A heterogeneous synthesis reactor comprising:
an external shell (2);

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at least a radial or axial-radial catalytic bed (6), provided with a gas inlet perforated cylindrical wall (7) and a gas outlet perforated cylindrical wall (8), extended in said shell (2);

characterized in that it further comprises in said catalytic bed:

an unperforated cylindrical wall (15) coaxial to said gas outlet wall (8) in said catalytic bed (6), said unperforated cylindrical wall (15) extending from an upper end (8a) of said gas outlet wall (8) along a perforated portion of ~~the same~~ said gas outlet wall and for a predetermined length in said catalytic ~~head-bed~~ (6), so as to define a free-space (16) between the perforated gas outlet wall (8) and the unperforated wall (15), for the passage of a part of the gas leaving said catalytic bed (6) through said portion of the gas outlet wall (8) facing said free-space (16);

means ~~effor~~ closing said free-space (16) between the unperforated wall (15) and the gas outlet wall (8), in proximity of the upper end (8a) of the latter, preventing thereby a bypass of said catalytic bed or a recycling to the catalytic bed of the gas entering and leaving the reactor respectively.--